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| 10/731,918 | 12/09/2003 | Francesco Grilli | 000350D1 | 5799 |
| 23596 7590 04/10/2008 QUALCOMM INCORPORATED 5775 MOREHOUSE DR. SAN DIEGO, CA 92121 | | | | |
| EXAMINER | | | | |
| ODOM, CURTIS B | | | | |
| ART UNIT | | PAPER NUMBER | | |
| 2611 | | | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com

kascanla@qualcomm.com

nanm@qualcomm.com

Office Action Summary

Application No.

10/731,918

Applicant(s)

GRILLI ET AL.

Examiner

CURTIS B. ODOM

Art Unit

2611

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-17 and 19 is/are allowed.
- 6) ☒ Claim(s) 18, 20 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/S508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Claim Objections

1. Claims 18, 20 and 21 are objected to because of the following informalities:
 - a. In claim 18, line 14, "based" is suggested to be changed to "base".
 - b. In claim 20, page 7, line 8, "proving" is suggested to be changed to "providing".
 - c. In claim 21, line 7, "rack" is suggested to be changed to "rake".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. Claims 20 and 21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 20 and 21 recite limitations such as "A computer readable medium containing executable computer program instructions" and "A processor readable medium containing executable computer program instructions". However, the specification does not disclose a computer readable medium or processor readable medium containing computer program instructions. At most the specification describes hardware used to implement the invention (see page 21, section 0084).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor (previously cited in Office Action 1/26/2007) in view of Papasakellariou et al. (previously cited in Office Action 7/12/2007).

Regarding claim 1, Taylor discloses a remote terminal in a communication system (see Fig. 1), comprising:

a rake receiver (see Fig. 1, block 28) including a CPU representing a means for identifying a first set of one or more base stations in active communication and a second set of one or more base stations not in active communication or unavailable (see column 4, lines 47-67), wherein the rake receiver includes a plurality of finger processors (see Fig. 1, elements 44-1-4, see column 4, lines 26-37), wherein a first set of one or more finger processors (elements 44-2-4) is assigned to a first set of one or more base stations (base station 14) in active communication (in an active set) with the remote terminal (as described in column 5, lines 6-18), wherein a second set of one or more finger processors (element 44-1) is assigned to a second set of one or more base stations (base station 16) not in active communication (in active set) with the remote terminal (see column 5, lines 40-49). However, Taylor does not disclose the rake

receiver includes means for performing a time measurement for each base station assigned with at least one finger processor, wherein a multipath for each base station is processed to obtain samples, the samples are processed to determine a start of a radio frame for a particular transmission, and the time measurement is indicative of the start of the radio frame and means for providing output indicative of time measurements for base stations assigned with finger processors.

However, Papasakellariou et al. discloses a rake receiver (see column 2, lines 26-37) including rake fingers which provide time measurements indicative of times of arrival of transmissions received at the remote terminal from a plurality of different base stations (see column 2, lines 40-62), wherein the rake fingers are assigned to demodulate signals from the different base stations (multipaths as described in column 1, lines 44-51) as described in column 2, lines 26-31. The path for the base station is processed to obtain samples (see column 4, lines 41-44) to determine the time of arrival of the radio signal, wherein it is the understanding of the Examiner that the time of arrival of the radio signal represents the start of the radio signal/frame. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the receiver of Taylor to measure time of arrivals of multiple base station signals as disclosed by Papasakellariou et al. since Papasakellariou et al. states this method allows for fast identification of pilot paths originating from any transmitting base station (see column 1, lines 12-16).

Regarding claim 20, the claim includes limitations corresponding to the above rejection of claim 18, except Taylor and Papasakellariou et al. do not disclose the method/apparatus implemented as a computer readable medium. The computer readable medium is an electronic,

magnetic, optical, or other physical device or means that can contain or store a computer program for use by or in connection with a computer-related system or method. The implemented computer readable medium contains software that would perform the same function of the hardware for less expense, greater adaptability, and greater flexibility. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to implement the method/apparatus of Taylor and Papasakellariou et al. as a computer readable medium to improve the adaptability and flexibility of the communication system.

Allowable Subject Matter

5. Claims 1-17 and 19 are allowable over prior art references.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CURTIS B. ODOM whose telephone number is (571)272-3046. The examiner can normally be reached on Monday- Friday, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu can be reached on 571-272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Curtis B. Odom/
Primary Examiner, Art Unit 2611
March 29, 2008

Application Number**Application/Control No.**

10/731,918

**Applicant(s)/Patent under
Reexamination**

GRILLI ET AL.

Examiner

CURTIS B. ODOM

Art Unit

2611